

Hypertension

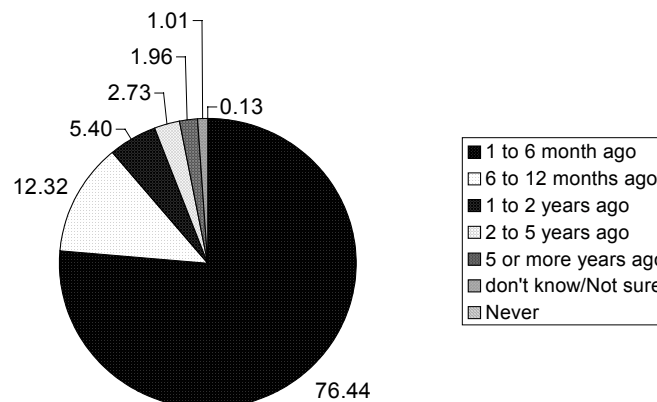
High blood pressure is defined as systolic blood pressure that is greater than or equal to 140 millimeters of mercury (mm Hg) and/or diastolic blood pressure of more than 90 mm of mercury (mm Hg). High blood pressure is one of the major risk factors of getting cardiovascular diseases, primarily coronary heart disease and stroke, and kills nearly as many Americans as all other diseases combined. There were 416 deaths (25.2 percent of all deaths) in 2000 due to cardiovascular causes in the Lancaster County. It is also one of the leading causes of disability. Nearly one-fourth of adults, as many as 50 million Americans, have elevated blood pressure or take antihypertensive medication.

Fortunately, hypertension is a modifiable risk factor. Once high blood pressure is discovered it can be monitored and regulated through diet, exercise, and medication, thus reducing the chance of potentially fatal conditions. Because high blood pressure produces no clear symptoms, regular blood pressure measurements are necessary for detection and control. Despite recent increases in the proportion of Americans who are aware that they have high blood pressure, a large proportion of Americans with high blood pressure still are unaware that they have this disorder. Therefore, frequent blood pressure screening is vital for people of all ages. The U.S. Preventive Services Task Force recommends blood pressure screening for all adults every two years. To determine prevalence of hypertension screening and magnitude of high blood pressure in the community, BRFSS respondents were asked these two questions: (1) "About how long it has been since you last had your blood pressure taken by a doctor, nurse, or other health professional?" (2) "Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure?" Respondents who did not have blood pressure checked within this time frame were considered a population at risk, and those who said "yes" to question 2 were defined as hypertensive. No High blood pressure questions were asked in the 2000 period.

High blood pressure Screening (Hypertension Awareness)

In 1999, 4.7 percent (95% CI, 3.4 %- 6%) of Lancaster County Adults were considered at risk, because they did not have their blood pressure checked within the past two years (Fig.23).

Fig.23: Time Since Last Blood Pressure Checked

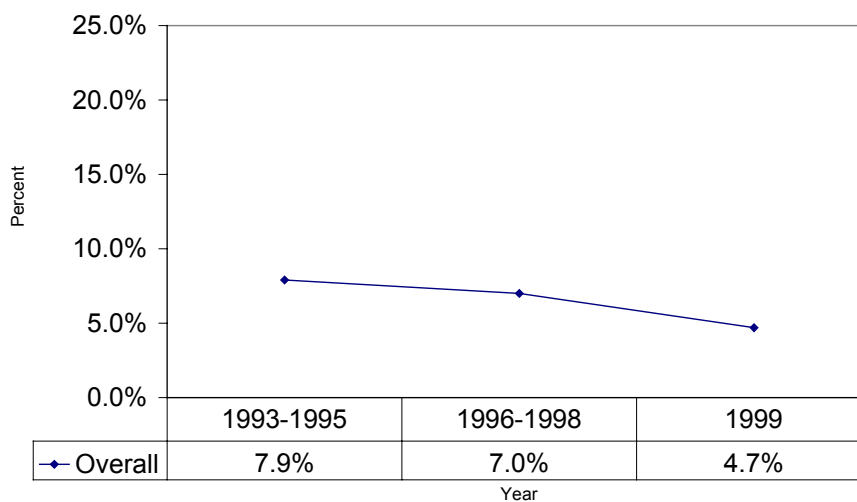


Only 0.1 percent said they never had their blood pressure checked in their life.

Prevalence and Trends

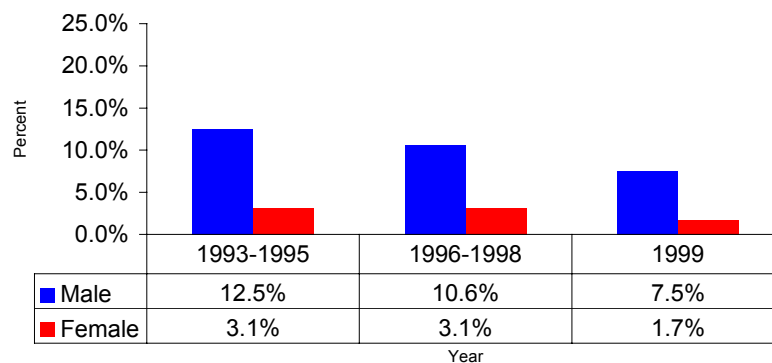
The prevalence of not having blood pressure measured in past two years has declined substantially (7.9% in 1993-1995 to 4.7% in 1999) over the past six years in the Lancaster County. This decline points to an overall increase in hypertension awareness among the County residents (Fig.24).

Fig.24: Had Not Checked Blood Pressure in Past Two Years



Lancaster County men (7.5%) were more likely than women (1.7%) to report not having their blood pressure checked within the past two years. A seven years trend demonstrates a higher blood pressure screening awareness among women than men (Fig.25).

Fig.25: Had Not Checked Blood Pressure in Past Two Years



The proportion of BRFSS adults who reported they did not have their blood pressure checked within past two years decreased with advancing age (Fig.26). Only 0.5 percent of adults aged 65-74 years did not have their blood pressure checked in the past two years as compared to 7.3 percent adults aged 25-34 years. Comparison rates for the same age groups were 0 percent versus 6.4 percent in 1993-1995, and 0 percent versus 9.8 percent in 1995-1998.

In 1999, the proportion of respondents at risk were lowest among income of \$50,000 or more (1.5%) and were highest among respondents with income of \$20,000-\$25,000 (12.3%). However, surveys in previous years failed to show such trend (Table 8).

Although the hypertension awareness rate did not differ significantly among respondents with different education levels in the 1999 and 1995-1998 surveys, as smaller percent (3.6%) of adults with college degree reported not having their blood pressure checked in two years than adults with an education level of “some high school or less.”

Fig.26: Had Not Checked Blood Pressure in Past Two Years by Age

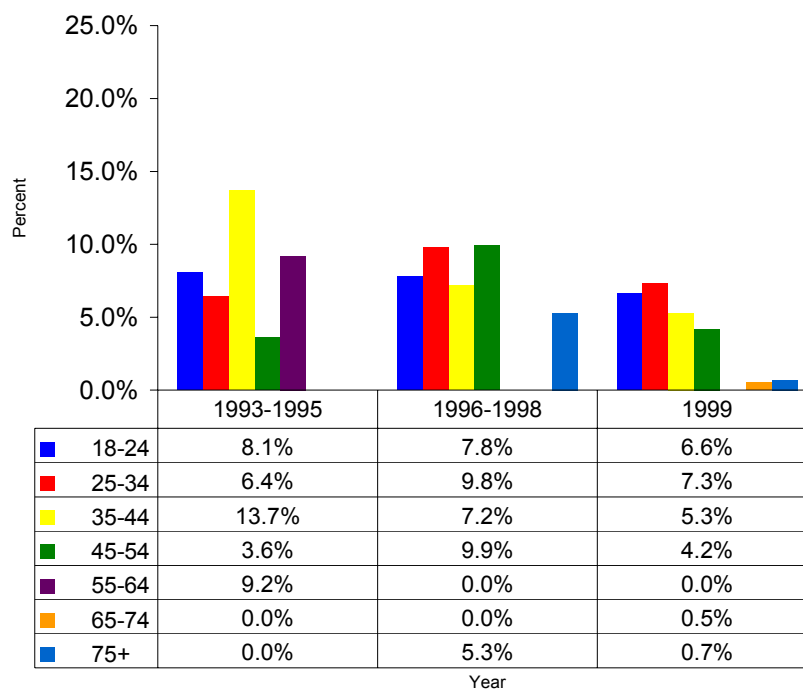


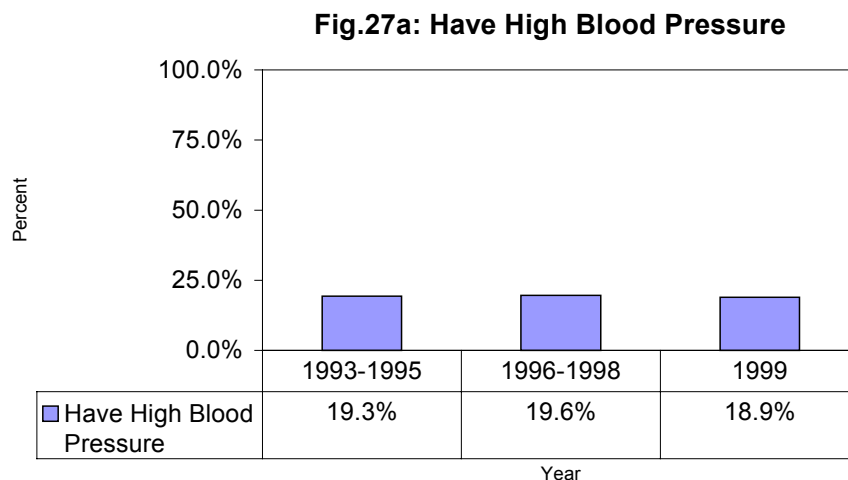
Table 8: Respondents Who Did Not Have Blood Pressure Checked in Past Two Years			
Years	1993-1995	1996-1998	1999
Highest Grade Completed			
Some HS or Less	13.4%	9.1%	5.2%
HS Grade or GED	11.7%	8.2%	5.1%
Some College	7.6%	4%	5.1%
College Grade	3.6%	9.3%	4%
Annual Household Income			
Less than \$10,000	1.5%	0%	8.6%
\$10,000 - \$15,000	4%	2.9%	5%
\$15,000 - \$20,000	5.8%	9.9%	5.1%
\$20,000 - \$25,000	4.5%	7.5%	12.3%
\$25,000 - \$35,000	12.2%	11%	5.3%
\$35,000 - \$50,000	9.1%	5.6%	2.2%
\$50,000+	5.1%	4.4%	1.5%

Prevalence of High blood pressure

According to BRFSS criteria, 19 percent of respondents in 1999 (95% CI, 16.5%-21.5%) reported as being hypertensive.

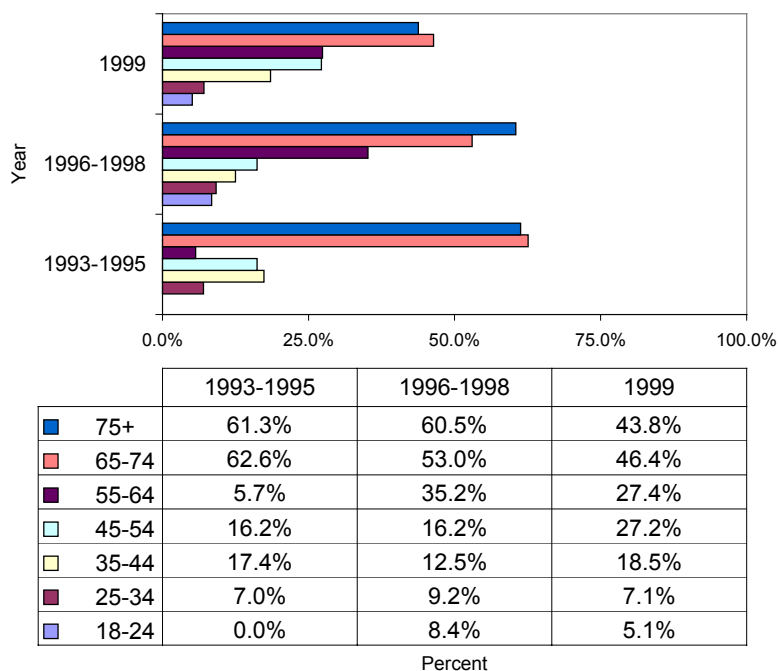
Prevalence and Trend

The proportion of adults who fell into the category of hypertensive patient remained about the same (around 19%) in all the survey periods, indicating a steady prevalence of hypertension in the County (Fig.27a).



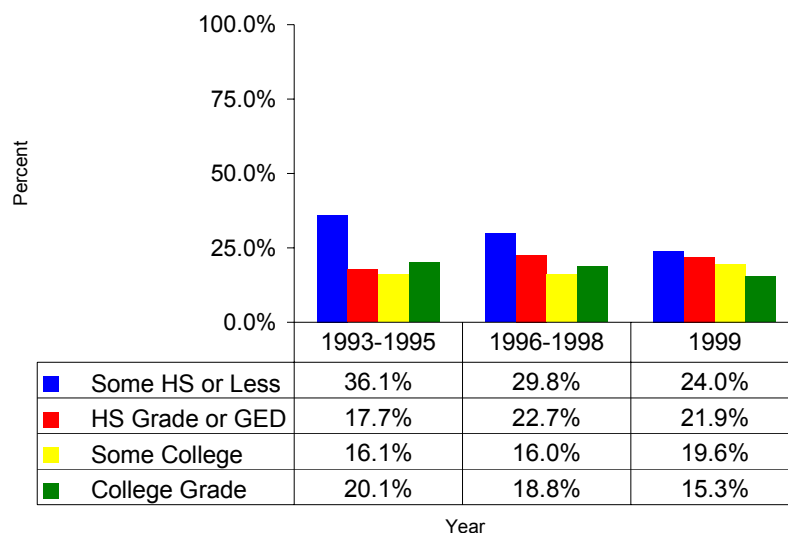
Increasing age appeared to be linked to higher prevalence of hypertension among adults of aged 18 and older (Fig.27b).

Fig.27 b: Respondents Who Have Ever Been Told Their Blood Pressure Was High by Age



The age specific rates for hypertensive patients were highest among the older population and lowest among the younger population. Four in 10 adults (43.8%) aged 75 or more have been told they have high blood pressure in Lancaster County in 1999, as opposed to 5.1 percent adults of aged 18-24 years.

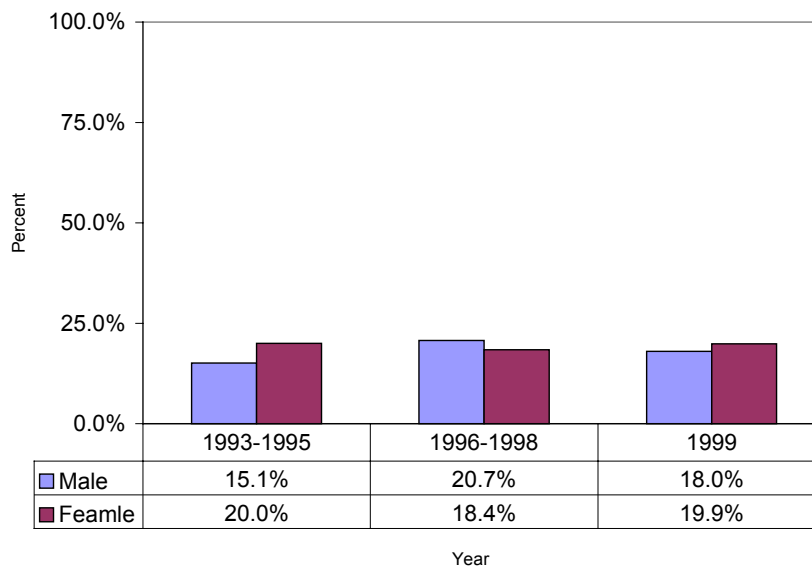
Fig.28: Have High Blood Pressure by Education



According to all the surveys, the higher the education levels the lower the chances of having high blood pressure. In 1999, almost one-fourth (24%) of BRFSS respondents with “some high school or less education” had been told that they had high blood pressure, whereas only 15.3 percent of College graduates were told the same (Fig.28).

Both men (18%) and women (19.9%) reported almost equal rates of high blood pressure in 1999 (Fig.29).

Fig.29: Have High Blood Pressure by Gender



More non-whites (21.4%) than whites (18%) reported that they were hypertensive. No particular trends in prevalence of high blood pressure by respondent's household income were observed (Table 9).

Table 9: Respondents Ever Told To Have High Blood Pressure			
Years	1993-1995	1996-1998	1999
Annual Household Income			
Less than \$10,000	14.5%	5.8%	16.3%
\$10,000 - \$15,000	29.3%	18.3%	23.6%
\$15,000 - \$20,000	11.8%	30.3%	18.5%
\$20,000 - \$25,000	16.1%	19.7%	14.2%
\$25,000 - \$35,000	14.4%	32.3%	14.5%
\$35,000 - \$50,000	18.4%	15.1%	17.9%
\$50,000+	15.4%	18.1%	23.5%
Race			
White	19.0%	20.1%	18.8%
Non-White	15.2%	7.2%	21.4%